

forming synchronized digital output signals which correspond to the digital input signals by interpolating each digital auxiliary signal.

2. (Amended) The method as claimed in claim 1, further comprising:

before sampling the common post-processing clock, filtering the digital input signals with a filter having a characteristic which is an inverse of a characteristic of an interpolation filter used for interpolating.

3. (Amended) The method as claimed in claim 1, further comprising:

filtering an anti-aliasing filter directly after the interpolation.

4. (Amended) The method as claimed in claim 1, wherein

the digital input signals are obtained from secondary variables, sampled with a dedicated operating clock, of measuring transducers in an electric power supply system.

5. (Amended) The method as claimed in claim 4, further comprising:

in the case of digital input signals formed from secondary variables of Rogovsky measuring transducers, the digital auxiliary signals are formed directly from the input signals, and an integrator is used for the interpolation.

**IN THE ABSTRACT:**

Please replace the Abstract in its entirety with the Abstract attached hereto.